

We claim:

- 1 1. A method for transmission of information in a communication system using ARQ
 2 with IR, the method comprises:
 3 providing, in information to be transmitted, identification information
 4 and an information status flag having a certain value indicating whether the information
 5 to be transmitted is NEW information or CONTINUE information;
 6 waiting to receive an interrupt signal from a scheduling algorithm
 7 resulting
 8 from the information being applied to the scheduling algorithm; and
 9 transmitting the information upon reception of the interrupt signal from
 10 the scheduling algorithm thus allowing transmissions to occur in an asynchronous
 11 manner.
- 1 2. The method of claim 1 where the step of waiting to receive an interrupt signal further
 2 comprises
 3 waiting for a confirmation message in response to a previous
 4 transmission; and
 5 applying NEW information to be transmitted to the scheduling algorithm
 6 upon reception of a positive confirmation message in response to a previous transmission
 7 or selecting CONTINUE information and applying such CONTINUE information to the
 8 scheduling algorithm upon reception of a negative confirmation message in response to a
 9 previous transmission.
- 1 3. The method of claim 1 where the step of transmitting information upon reception
 2 of the interrupt signal from the scheduling algorithm further comprises selecting NEW
 3 information and applying said NEW information to the scheduling algorithm when an
 4 established maximum number of retransmissions of the transmitted information has been
 5 reached.

2 discarded.

2 NEW/CONTINUE flag.

$g^{(m)}_1, g^{(m)}_2, \dots, g^{(m)}_n, g^{(m)}_{n+1}, \dots, g^{(m)}_N$ are all taken from $\{g^{(m)}_1, g^{(m)}_2, \dots, g^{(m)}_N\}$